

ARTIFICIAL INTELLIGENCE CONCENTRATION

The Artificial Intelligence concentration is intended to enable students to learn about the principal technologies and methods for programming autonomous behavior on software agents and robots as well as learn about the computational approaches towards solving problems that deemed to require human intelligence. Students will gain knowledge about the reasoning, planning and learning techniques and algorithms used by software agents for natural language understanding, and by robots and game-avatars for problem solving, mobility, and strategic decision making. Taking courses in this track will provide students the essential skills for writing programs for real-world problems that require software programs and robots to mimic human behavior and assist humans in performing complex, risky and tedious tasks. Students will also have an opportunity to participate in national and international AI and game programming competitions and do capstone course projects to explore selective topics in more in-depth manner.

Requirements

Code	Title	Credits
Required		
CSCI 3450	NATURAL LANGUAGE PROCESSING	3
CSCI 4450	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	3
Electives		
Select 4 courses from the following		12
PHIL 2010	SYMBOLIC LOGIC	
CSCI 2410	INTRODUCTION TO DATA ANALYTICS USING PYTHON	
CSCI 2510	INTRODUCTION TO GAME PROGRAMMING	
CSCI 3470	FUNDAMENTALS AND ALGORITHMS OF MACHINE LEARNING	
CSCI 3510	ADVANCED GAME PROGRAMMING	
CSCI 3850	FOUNDATIONS OF WEB SEARCH TECHNOLOGIES	
CSCI 4150	GRAPH THEORY & APPLICATIONS	
CSCI 4250	HUMAN COMPUTER INTERACTION	
CSCI 4470	PATTERN RECOGNITION	
CSCI 4480	ALGORITHMS FOR ROBOTICS	
CSCI 4760	TOPICS IN APPLIED MATHEMATICS	
CSCI 4850	DATABASE MANAGEMENT SYSTEMS	
CSCI 4890	DATA WAREHOUSING AND DATA MINING	
ISQA 4010	BUSINESS INTELLIGENCE	
MATH 4450	INTRODUCTION TO MACHINE LEARNING AND DATA MINING	
Total Credits		18